UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: JUN 29 2000

JECT: Preliminary Close Out Report for the Asbestos Dump Superfund Site

FROM: Carole Petersen, Chief
New Jersey Remediation Branch

TO: Richard L. Caspe, Director
Emergency and Remedial Response Division

Attached for your review and approval is a *Preliminary Close Out Report* for the Asbestos Dump Superfund Site in Millington, New Jersey. It addresses all three operable units of the site.

My staff and I are available to discuss this report at your convenience.

Attachment

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SURNAME ->	Rosa MR	Gowers	Petersen	Forger	Caspe			
DATE ------->	6-29-00	6-29-00	6/21	6/30	6/30			

Preliminary Close Out Report
Asbestos Dump Site
Meyersille, Morris County, New Jersey

I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) has determined that all construction activities at the Asbestos Dump Site has been completed in accordance with *Close Out Procedures for National Priorities List Sites* (OSWER Directive 9320.2-09A-P). The Asbestos Dump Site is being addressed in three operable units (OUs). EPA and the New Jersey Department of Environmental Protection (State) conducted a pre-final inspection for Operable Unit One on May 11, 2000; for Operable Unit Two on February 24, 2000 and for Operable Unit Three on May 18, 1999, and determined that the contractors have constructed the remedy in accordance with remedial design (RD) plans and specifications. EPA, the State and the U.S. Department of Interior have initiated the activities necessary to achieve performance standards and site completion.

II. SUMMARY OF SITE CONDITIONS

Background

The Asbestos Dump Superfund Site ('Site') consists of four separate properties located in southeastern Morris County, New Jersey. These four properties are: ① the Millington parcel located in Millington, New Jersey; ② the New Vernon Road parcel located in Meyersville, New Jersey: ③ the White Bridge Road parcel located in Meyersville, New Jersey; and ④ the Dietzman Tract located in the Great Swamp National Wildlife Refuge in Harding Township, New Jersey. Manufacturing of asbestos products began in 1927 at the Millington site. Waste products containing asbestos were disposed on all four properties. EPA proposed the Asbestos Dump Site to the National Priorities List (NPL) on December 1, 1982 and added it to the final list on September 1, 1983.

The Asbestos Dump Site is being addressed in three operable units (OUs). A Record of Decision (ROD) for the first operable unit (OU-1), the Millington parcel, was signed on September 30, 1988. A ROD was signed on September 27, 1991 for the second operable unit (OU-2), the New Vernon Road and White Bridge Road properties. The ROD for the third operable unit (OU-3), the Dietzman Tract, was signed on September 8, 1998 and is under Federal Facilities jurisdiction.

Enforcement Status

In September 1984, EPA issued a notice letter to the National Gypsum Company (NGC) notifying the company of its liability as a potentially responsible party (PRP) and offering the company an opportunity to conduct a remedial investigation and feasibility study (RI/FS). On April 1, 1985, EPA issued an Administrative Order On Consent to NGC to conduct the RI/FS at the four properties comprising the Asbestos Dump Site. In May 1987, NGC submitted an RI

Report to EPA which adequately characterized contamination at the Millington Site. However, the RI Report inadequately characterized the nature and extent of contamination at the other properties. EPA decided that the Millington Site would be remediated as the first operable unit and on September 25, 1989, issued a Unilateral Administrative Order (UAO) to NGC, for the performance of the remedial design and remedial action at the Millington Site.

On October 28, 1990, NGC filed a voluntary bankruptcy petition. On May 8, 1991, EPA filed a Proof of Claim for past costs at the Millington, New Vernon Road and White Bridge Road Sites. EPA was awarded settlement costs for the remediation of the Millington Site, New Vernon Road and White Bridge Road Sites. As part of the settlement agreement, NGC was relieved of its remedial design/remedial action obligations under the 1989 Administrative Order. Consequently, EPA funded the remedial design and remedial action activities at the OU-1 Millington Site.

Operable Unit One:
The Millington parcel, OU-1, is an 11 acre commercial property located at 50 Division Avenue in Millington, New Jersey. The parcel is bounded on the west by the Passaic River, on the north by the Millington Train Station, and on the east and south by commercial and private residences, respectively. Currently owned by Tifa Ltd., this parcel was formerly utilized as an asbestos processing plant that was owned by National Gypsum Company (NGC) and previously, by other manufacturers of asbestos products. Manufacturing of asbestos products at the Millington Site began in 1927 by Asbestos Ltd., which engaged in the fiberization and sale of asbestos until 1946. From 1946 until 1953, the plant was owned and operated under Smith Asbestos, Inc., a manufacturer of asbestos roofing and siding. During this later period, asbestos sediment from water settling ponds was disposed on-site.

In May 1953, the property was acquired by NGC, which manufactured cement asbestos siding and roofing sheets at the plant until 1975. During this period, waste products, consisting of broken siding and asbestos fibers were dumped on a five acre area of the property. This included a 330 by 75 foot area (referred to as the asbestos mound) where predominantly asbestos fibers were disposed. It is estimated that 90,000 cubic yards of asbestos waste was disposed of on-site.

In addition, from 1959 until 1972, NGC used phenylmercuric acetate (PMA) as a fungicide to coat asbestos shingles. Waste generated by the cleaning of coating equipment was disposed of in small pits west of the plant.

The Passaic River is utilized as a public water supply source. Ten miles downstream from the Millington parcel, the Commonwealth Water Company has a surface water intake that serves 74,000 people. There are approximately 200 individuals who are employed by twenty-one businesses operating on the active portion of the parcel, which has been converted to an industrial park by Tifa Ltd.

Exposed areas of asbestos fibers were observed on the slope of the asbestos mound adjacent to the Passaic River. The asbestos mound was heavily vegetated with thick underbrush and deciduous trees. A Remedial Investigation and Feasibility Study (RI/FS) was performed by NGC. The RI/FS was completed in November 1987. Extensive soil sampling and slope stability analyses were conducted at the Millington site to determine site characteristics, the full nature and extent of the contamination, and potential pathways of contaminant migration. The slope stability investigation determined that the asbestos mound was relatively stable and not in imminent danger of collapse. However, the slope remained unprotected from surface erosion and the potential destabilizing effects of flooding along the Passaic River.

Remedial Construction Activities - Operable Unit One

On September 30, 1988, the Regional Administrator signed a Record of Decision (ROD) documenting the remedial action (RA) for OU-1, the Millington parcel, which included the installation of a two foot soil cover; installation of a retaining wall system; slope stabilization and slope protection measures; surface run-off controls and construction of a wetland channel. The ROD estimated 90,000 cubic yards of asbestos contaminated material required containment.

The remedial design was performed by EPA's ARCS contractor for the Site and the U. S. Army Corps of Engineers (USACE) provided remedial design oversight assistance. The remedial design was completed in July 1998. EPA entered into an Interagency Agreement with the USACE for performance of the Remedial Action (RA). The RA activities were conducted by IT Corporation. The RA began in June 1999 and was completed in June 2000.

Remedial Action activities were performed according to design specification and cleanup included, but was not limited to, the following activities:

- personnel and perimeter air monitoring;
- soil erosion and sediment control measures;
- clearing and grubbing of roots, stumps and logs in the area of the asbestos mound to be addressed;
- excavation and consolidation of asbestos contaminated soils to an on-site disposal area;
- construction of work platform and access road;
- construction of a wetland channel
- installation of a 300 foot long by eight foot high retaining wall;
- slope stabilization measures; and
- installation of a two foot soil cover over the entire asbestos mound.
- site restoration activities including grading and revegetation of the site.
- Construction of a chain-link fence around the perimeter of the site with a locked gate to restrict the access of unauthorized persons and equipment, and posting appropriate warning signs.

Operable Unit Two:
The New Vernon Road parcel of OU-2 consists of approximately 30 acres of land located at 237 New Vernon Road in Meyersville, New Jersey. The property is identified as Block 225, Lots 30 and 30.02 on the tax map of the Township of Long Hill, New Jersey. The property is bounded by New Vernon Road to the west, a portion of the Great Swamp National Wildlife Refuge to the north, and tracts of wooded and wetland areas to the east and south. Currently, one residence and a detached garage are located on this parcel.

The White Bridge Road parcel of OU-2 consists of approximately 12 acres of land located at 651 White Bridge Road as well as adjoining property, which is part of the Great Swamp National Wildlife Refuge, in Meyersville, New Jersey. This parcel is bounded by White Bridge Road to the north, the Great Swamp National Wildlife Refuge to the east and southeast, Black Brook to the southwest and a vacant wooded lot to the west. One private residence is located on the parcel. An asphalt driveway located in the northwest portion of the property allows access to a two story dwelling, garage, two sheds and three stables.

During the 1960's and 1970's asbestos containing material (ACM), consisting of asbestos tiles and siding from NGC, was disposed of as fill on the properties. At the New Vernon Road parcel, asbestos contamination was primarily detected in the area of the residence and in the north-western portion of the property. At the White Bridge Road parcel, the majority of asbestos contamination in soils was located in the eastern portion of the property.

Removal activities at the OU-2 properties were conducted to temporarily reduce the potential for asbestos fibers to become airborne and to restrict access. These activities included: placement of signs and temporary fences to restrict access to areas of visible surface contamination, covering of areas of contamination with geotextile fabric, and sampling of air from residences.

In conjunction with the removal activities, an RI/FS was initiated by EPA in the fall of 1990 to fully characterize the extent of asbestos. The RI included a hydrogeological investigation, extensive sampling and subsequent laboratory analysis of subsurface soils, sediments, surface water, ground water, potable water, and air. Sampling techniques used at the parcel included analysis of soil for asbestos by the Transmission Electron Microscopy (TEM) method and analysis of air by the Phase Contrast Microscopy (PCM) method. The site-specific detection limits for asbestos of each method was determined to be 0.5 percent weight by weight of asbestos and 0.01 asbestos fibers per cubic centimeter (cc), respectively. Field work was completed in the fall of 1990, and the RI and FS reports were completed in June 1991.

Remedial Construction Activities - Operable Unit Two:

On September 27, 1991, the Regional Administrator signed a ROD documenting the RA for OU-2, the New Vernon Road and White Bridge Road properties, which included the consolidation of all ACM into one area of each parcel and the in-situ solidification/stabilization of the top two and a half feet of the ACM. After solidification/stabilization, a soil cover was to be placed on the

disposal area. Based upon cleanup objectives that comply with the Federal and state hazardous waste requirements as well as recommendations from the ATSDR, the 0.5 percent by weight of asbestos level was determined to be protective of health and the environment at the Asbestos Dump Site.

TRC Environmental Corporation (TRC), under contract by EPA, performed the Treatability Study in accordance with the Treatability Study Work Plan and the Field Sampling and Analysis Methodology Plan. The results are presented in the Treatability Study (TS) report dated February 3, 1993. The objective of the study was to determine design specifications and to identify limitations and potential problems that could arise from solidification of ACM present at the White Bridge Road and the New Vernon Road properties. The TS report indicated that ACM would not be adequately solidified below the water table. Consequently, the ROD remedy was modified with an Explanation of Significant Differences (ESD) on October 20, 1993 to limit the solidification extent to above the water table.

The final remedial design (RD) report was issued in January 1993. The RD addresses the primary risk of inhalation and future risk to surface water through erosion and subsequently to human health and the environment. The remedial design included: excavation and consolidation of ACM, solidification/stabilization of the ACM above the ground water table, construction of a final protective geomembrane/soil cover, construction of a perimeter infiltration trench, final grading and revegetation.

EPA issued a Notice to Proceed to the remedial action contractor, CDM Federal Programs Corporation on April 4, 1994. Construction of the selected remedy for the White Bridge Road and New Vernon Road properties included:

- sampling and analyzing soils to define the area of contamination;
- perimeter and personnel air monitoring;
- excavation and consolidation of asbestos contaminated materials into a central area of the property;
- in-situ stabilization/solidification of the asbestos contaminated material;
- confirmatory soil sampling;
- backfilling the excavated area;
- construction of a two foot impermeable layer over the entire landfill;
- installation of perimeter infiltration trench; and
- regrading and revegetating the landfill;

A subcontractor, Geo-Con Inc., performed construction activities in two phases. The first phase included work activities such as excavation, solidification, backfilling and construction of the impermeable cover. Confirmatory sampling of the limits of ACM and excavation of contaminants began in August of 1994. The solidification/stabilization of ACM was initiated on October 10, 1994. The final depth of the solidified ACM contaminated soils is two and a half feet below the ground surface. The geomembrane installation process began on November 15, 1994.

The second phase consisted of site restoration. Site restoration included topsoil placement, cap construction, monitoring well installation, stockpile removal, seeding, and landscape replacement. This phase was conducted between March and November 1995.

At the White Bridge Road property, the subcontractor completed remedial construction activities in October 1995. Approximately 25,000 cubic yards of asbestos contaminated material was treated at the White Bridge Road property. A pre-final site inspection was held on October 26, 1995. On November 1, 1995, a final inspection produced no punch list items for field work, except for filling/grading the low areas of the impermeable cover with topsoil and the post-construction property assessment scheduled for spring 1996. Final completion of field work was confirmed with the November 2, 1995 inspection by EPA, CDM/FPC, and Geo-Con, Inc.

After implementation of the remedy, it was discovered that some of the fill, used by the remedial action contractor originated from a facility subject to the New Jersey Environmental Cleanup Responsibility Act, now the Industrial Site Recovery Act. On April 7, 1995, EPA deemed the fill unacceptable and issued a Cure Notice, for both properties, to CDM Federal for failure to meet the contract specifications for the use of fill. On August 15, 1995, EPA accepted a final Cure Notice Response Workplan for the White Bridge Road property. The Cure Response for the White Bridge Road property included: placing of a three inch layer of stone screening over the unacceptable fill at the stable area and removal of five cubic yards of unacceptable fill located within the stockpile at no cost to EPA.

The Cure Response at the New Vernon Road property included the removal of all unacceptable fill, at no cost to the government. Approximately 30,000 cubic yards of unacceptable backfill material was remediated at the New Vernon Road property. In June 1998, the government acquired the New Vernon Road property and has maintained the structures and property. The completion of cure response cleanup activities at New Vernon Road was initiated in July 1998 and was completed by March 1999. The USACE provided oversight of the cure response cleanup activities.

Operable Unit Three:

The Dietzman Tract, OU-3, is a 7 acre parcel of land located in the Great Swamp National Wildlife Refuge (GSNWR), about 2 miles southeast of the New Vernon Road portion of the site. The GSNWR, currently owned by the United States Department of Interior - Fish and Wildlife Service (USFWS), covers approximately 7400 acres of swamp, wooded, and wetland areas. The refuge is managed by USFWS for a wildlife habitat and for recreational purposes. In addition to 185,000 annual visitors, there are approximately 440 residents of the neighboring community within a one mile radius of OU 3. The Dietzman Tract includes the following four discrete areas:

① Site A (5 acre Asbestos Contaminated Dump),
② Site B (a half acre dump) consisting of refuse and covered with Asbestos Contaminated Material - ACM)
③ An Unimproved Access Road (UAR) which leads to Site A and Site B; and
④ Three small refuse areas (1.6 acres) adjoining Site B (Refuse Areas # 1,3,6).

The above mentioned four discrete areas of OU 3 were used for the disposal of refuse collected from neighboring communities. Along with refuse, ACM and other industrial wastes from the NGC were trucked to the site for disposal. The disposal of ACM began in 1959 and ended in 1968. Approximately, 40,000 cubic yards of ACM and refuse have been delineated at OU 3.

The USFWS conducted Remedial Investigations at OU 3 between 1991 and 1997. Buried drums were discovered (and later removed) at Site A which contained mercury and trichloroethene (TCE). Surface soils at Site A also contained several inorganic constituents such as mercury and lead. ACM tile fragments were also found at Site A and B. The most significant inorganic contamination found at Site B was lead. ACM and refuse debris were found at the UAR and Refuse Areas 1,3,6 along with several isolated hotspots of lead in surface soils adjacent to Site B.

Remedial Construction Activities - Operable Unit Three:

Due to the bankruptcy of National Gypsum Company, the Dietzman property is being addressed by the U.S. Department of Interior (DOI). DOI completed an additional Remedial Investigation and Feasibility Study for this operable unit (OU3) in 1997. As part of its field work, DOI conducted removal actions on small areas where asbestos contaminated materials may have been a potential exposure threat to refuge visitors. EPA issued a ROD in September 1998, and by November 1998, cleanup activities were completed including consolidation of asbestos and the construction of a cap to contain asbestos.

On September 8, 1998, the Regional Administrator signed a ROD for Operable Unit 3 which included removal and off-site disposal of buried drums at Site A, removal and off-site disposal of lead impacted soils in Site B, RA 1,3,6, consolidation of ACM from Site B, RA 1,3,6 and the UAR to Site A and capping of the ACM at Site A with a biotic cover. Short and long term drainage improvements, assessment of Wetland Impacts and Wetlands Restoration, implementation of institutional controls to ensure the continued integrity of the drainage improvements and capping activities, and appropriate environmental monitoring to confirm the effectiveness of the remedy.

The USFWS contracted the U.S. Army Corps of Engineers to perform remedial design and construction activities. The Army Corps subcontracted the design and construction activities to IT Corp. The phased approach to the remedy was as follows: 1. Removal of buried drums at Site A was completed in October 1997, which also included short and long term drainage improvements, 2. Removal of lead contaminated soil for off-site disposal at concentrations of greater than 218 mg/kg and consolidation of ACM from Site B, RA 1,3,6 to Site A. This work was completed in June 1998, and 3. Consolidation of UAR into Site A and capping of Site A which was completed by November 1998.

EPA and NJDEP conducted an inspection of the construction on May 18, 1999 and found the remedial construction to be satisfactorily completed in accordance with design plans. On September 9, 1999, EPA approved the Final Remedial Action Report (RAR) documenting that all remediation is complete at the Dietzman tract portion of the Asbestos Dump site. The Operation

and Maintenance Plan (O&M) for OU 3 concerning monitoring activities was approved by EPA on June 14, 1999.

III. DEMONSTRATION OF CLEANUP ACTIVITY QUALITY ASSURANCE AND QUALITY CONTROL

EPA and the State reviewed the remedial action contract and construction for compliance with quality assurance and quality control (QA/QC) protocols. Construction activities at all three operable units of the site were determined to be consistent with the ROD, RD plans and specifications, and RD/RA statement of work issued to the contractors.

The subcontractor for construction adhered to the approved construction quality control plan (CQCP). The construction quality assurance plan (CQAP) incorporated all EPA and State requirements. All confirmatory inspections, independent testing, audits, and evaluations of materials and workmanship were performed in accordance with the construction drawings, technical specification and CQAP. Construction quality assurance was performed by the RAC contractor firm, which maintained a constant on-site presence. The EPA RPM and State Site Manager periodically visited the site during construction activities to review construction progress and evaluate and review the results of QA/QC activities. Deviations or non-adherence to QA/QC protocols, drawings, or specifications were properly documented and resolved. The Quality Assurance Project Plan (QAPP) incorporated all EPA and State QA/QC procedures and protocol. EPA analytical methods were used for all confirmation and monitoring samples during RA activities. Procedures and protocol followed for soil sample analysis during the RA were conducted using a laboratory under contract to the Contract Laboratory Program (CLP). The air sample analysis followed the EPA protocols in the *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air*. EPA and the State determined that analytical results are accurate to the degree needed to assure satisfactory execution of the RA.

IV. ACTIVITIES AND SCHEDULE FOR SITE COMPLETION

The following activities remain for the Asbestos Dump Site:

Task	Estimated Completion	Responsible Organization
OU-1 (Millington Parcel)		
Complete Final Inspection	August 2000	EPA/State
Approve O&M Plan	July 2000	EPA/State
Determine Remedy O&F	August 2000	EPA/State
Approve RA Report	August 2000	EPA/State

OU-2- New Vernon Road		
Approve O&M Plan	August 2000	EPA/State
Approve RA Report	August 2000	EPA/State
Determine Remedy O&F	August 2000	EPA/State
Sitewide (OU-1, OU-2 and OU-3)		
Institutional Controls	July 2001	EPA/State
Five Year Review	August 2000	EPA
Approve Final Close-Out Report	July 2001	EPA
Deletion from NPL	September 2001	EPA

V. SUMMARY OF REMEDIATION COSTS

The September 1988 ROD estimated the capital costs of OU-1 to be $679,000 - $966,000. The Annual O&M costs were estimated to be $56,000 - $161,000. The present worth cost was estimated to be $1,145,000. The final RA cost for OU-1 is $4 million. Annual O&M costs are estimated to be $50,000.

The original cost estimate to implement the remedial action described in the September 1991 ROD for OU2 was $4,700,000 (capital cost). The present worth cost was estimated to be $5,700,000. The annual O&M costs were estimated to be $43,000. The actual project cost for the remedial action is approximately $10 million

The original cost estimate to implement the remedial action described in the September 1998 ROD for OU 3 was $3,908,000. The actual project cost for the remedial action was $3,135,000 Annual O&M costs are estimated to be $50,000.

VI. FIVE-YEAR REVIEW

Hazardous substances will remain at all three operable units of the Asbestos Dump Site above levels that allow unlimited use and unrestricted exposure after the completion of the remedial actions. Pursuant to CERCLA section 121(c) EPA must conduct statutory five-year reviews. The first Five-Year Review is currently underway and will be completed soon.

Director, Emergency & Remedial Response Division

6/30/00

Date